January 29, 2015

**URGENT PRODUCT RECALL**
**MEDICAL DEVICE FIELD CORRECTION**

**PRODUCT: MAQUET CARDIOSAVE® Hybrid Intra-Aortic Balloon Pump (IABP)**
**Model Number: 0998-00-0800-55**

**Product Distribution Dates: March 6, 2012 through August 19, 2014**

**PLEASE FORWARD THIS INFORMATION TO ALL POTENTIAL INTRA-AORTIC BALLOON PUMP (IABP) USERS WITHIN YOUR INSTITUTION**

**Dear Risk Manager,**

As part of our commitment to quality, and to ensure that we are continuously meeting our customers' expectations, we want to inform you of a potential issue related to the power supply in the CARDIOSAVE Hybrid Intra-Aortic Balloon Pumps (IABP). Since the commencement of commercialization of the CARDIOSAVE Hybrid Intra-Aortic Balloon Pumps (IABP) in December 2011, Maquet has received thirteen (13) power supply complaints that were determined to be related to suboptimal thermal management. It is important to note that none of the thirteen complaints identified any adverse patient events.

Suboptimal thermal management of the power supply may result in the power supply not providing the correct output voltage to the CARDIOSAVE Hybrid IABP console, and the inability to charge the batteries. Failure to provide the correct output voltage to the console will result in the unit not functioning from AC power, even when plugged into an active electrical outlet. Should a power supply malfunction occur, an on screen message will alert the healthcare provider that the CARDIOSAVE Hybrid IABP unit is operating on battery power. Consult section 2.4 of the CARDIOSAVE Hybrid User's Manual/IFU for specific details regarding Alarm and Informational Messages.

The CARDIOSAVE Hybrid IABP has two battery bays which accommodate user replaceable rechargeable batteries. The system automatically switches to battery power if AC power is not available (intentional or due to power loss). Therefore there should be no interruption of therapy to the patient providing that the batteries are fully charged. Furthermore, as indicated in our Operating Instructions "Prior to portable operation, the battery should be fully charged" and "Ensure sufficient additional charged batteries are available".

**Product Affected**
The product affected by the Field Correction is the CARDIOSAVE Hybrid Intra-Aortic Balloon Pump.

CARDIOSAVE Hybrid IABPs serviced with a new/replacement power supply after August 19, 2014 are not affected.

A review of our records indicates that you may have a CARDIOSAVE Hybrid IABP in your facility that may be affected by this recall.

Please note that the CARDIOSAVE Rescue IABP uses a different power supply than the CARDIOSAVE Hybrid IABP and therefore, is not affected by this field correction.

**Adverse Effect on Patients**
If the power supply malfunction occurs an on screen message will alert the healthcare provider that the IABP is operating on battery power. The IABP has two battery bays which accommodate replaceable rechargeable batteries. The current state of charge of each installed battery is depicted in the Battery Icon Display Area on the Monitor Display or by pressing the button on the front of the battery. When all 5 LEDs are illuminated, the battery is 80 – 100% charged.

When the IABP switches to battery power, the "Battery in Use" Informational Message is displayed in the Message Display Area and the Battery Icon is displayed in the Battery Icon Display Area. When the battery has approximately 30 minutes of operating time remaining, the Low Battery Medium Priority Alarm message is displayed continuously in the Message Display Area, an audible alarm occurs and the Battery Icon Display Area will display the approximate time remaining in 5 minute intervals starting at <30 minutes. Additionally, pursuant to the WARNINGS section of our IABP Operating/User Instructions, clinicians are instructed not to leave the patient unattended during IABP therapy.

An additional hazard associated with a sudden shutdown is related to the static condition (no inflating or deflating) of the balloon during the interruption of therapy. It is important to note the following WARNING in the CARDIOSAVE Operating/User Instructions:

***WARNING: The patient balloon should not remain inactive in the patient (i.e., no inflating or deflating) for more than 30 minutes, due to the potential for thrombus formation.***

In the unlikely event that this situation was to occur, transfer the patient to an alternative Maquet IABP. If an alternative Maquet IABP is unavailable; manually inflate the IAB with air or helium and immediately aspirate. Please refer to the IAB Instructions for Use, *Manually Inflating and Deflating a Catheter.* The IAB Instructions for Use reiterates that a catheter should not remain inactive for more than 30 minutes, due to the potential for thrombus formation. Alternatively, the IAB could be removed.

**Corrective Action**
At your convenience, your Service Representative will contact you to schedule the replacement of the cart power supply. This work will be done at no cost to you at your facility. Upon completion of the replacement, you will be requested to sign a service repair order to verify satisfactory completion of the work. Your cooperation is greatly appreciated.

With the low incident of occurrence associated with suboptimal thermal management, Maquet does not anticipate that your CARDIOSAVE Hybrid power supply will experience this issue. However, should this occur, please contact your Maquet representative for immediate assistance.

We apologize for any inconvenience you may experience as a result of this field correction.

Sincerely,

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